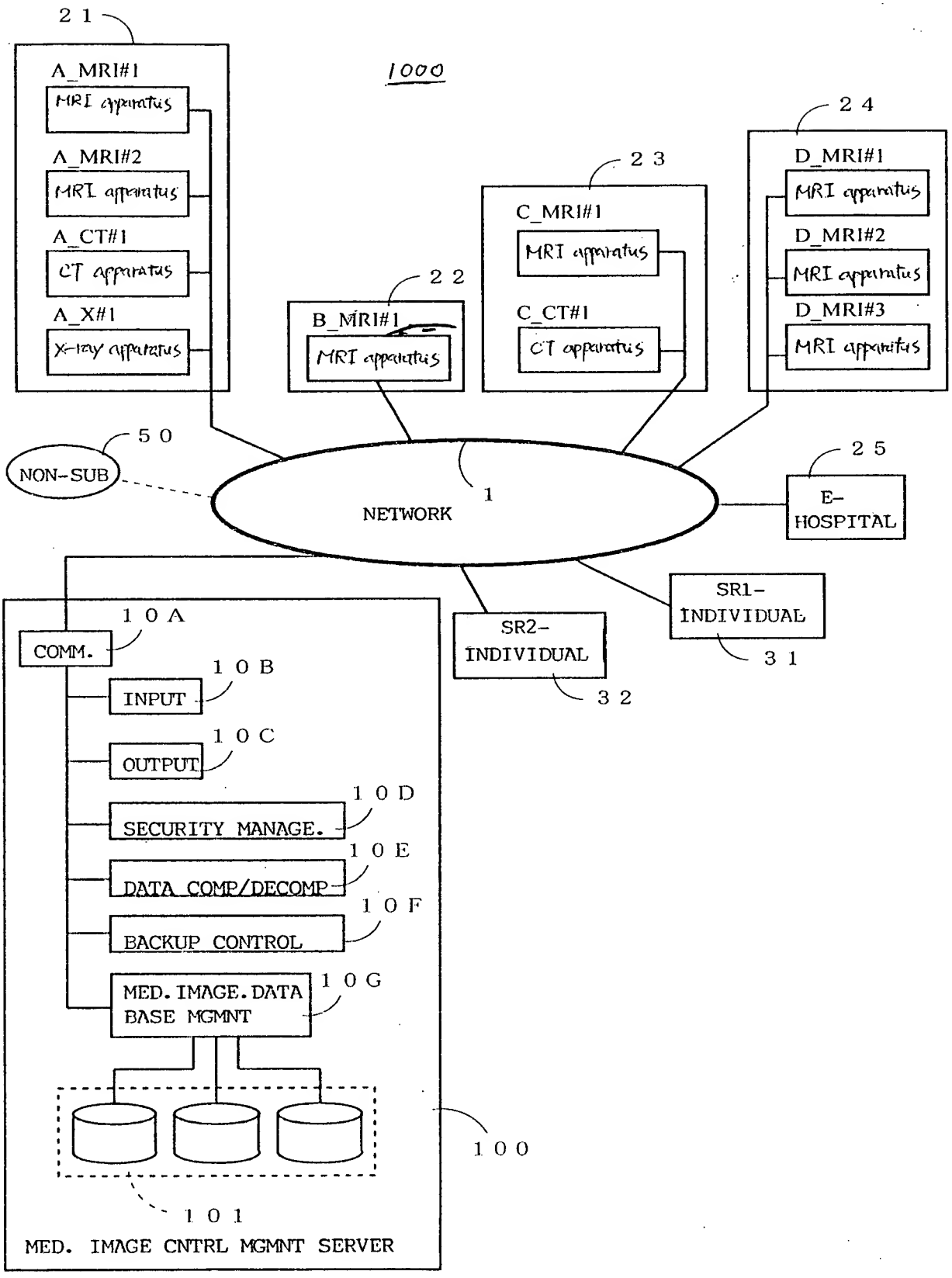
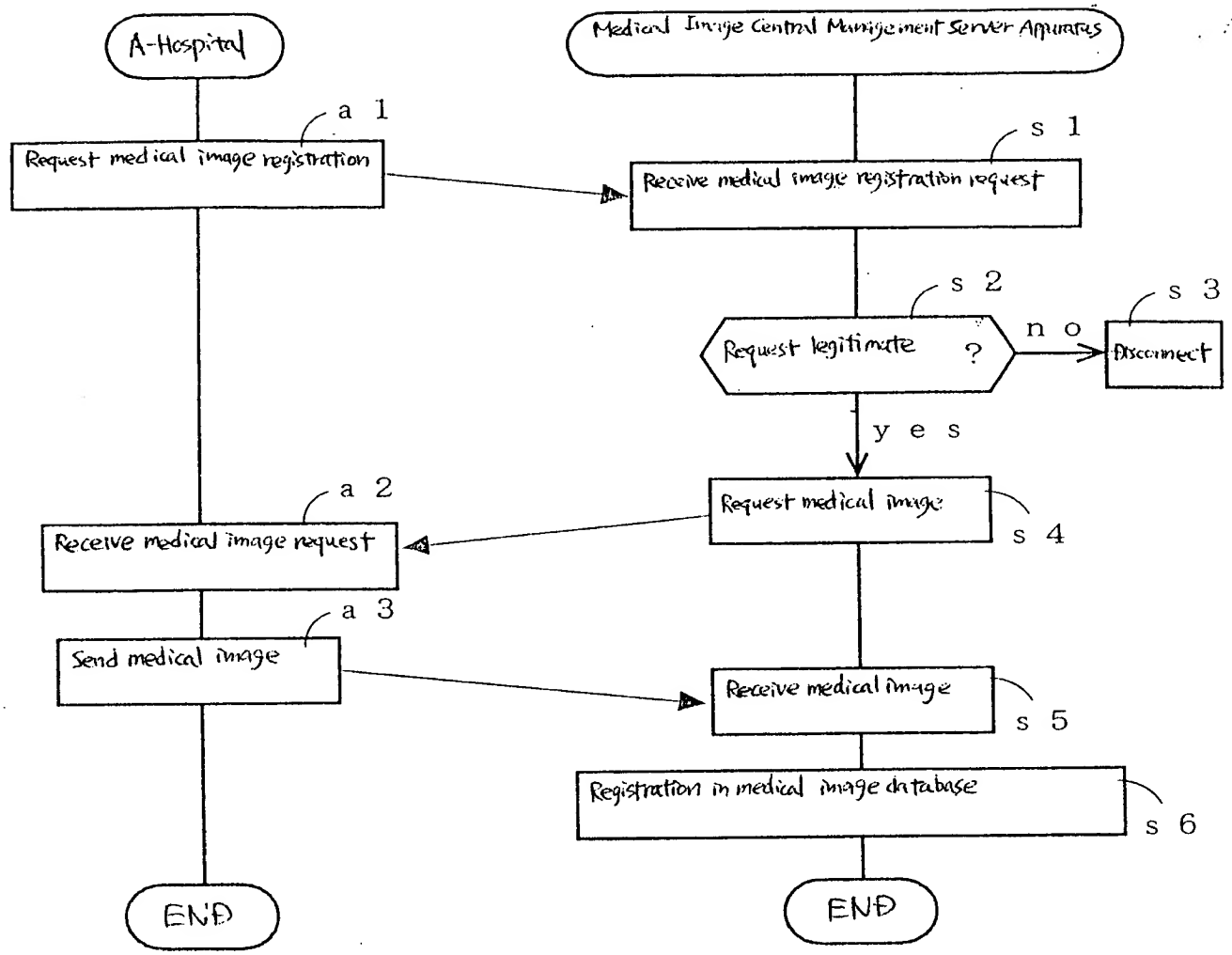
FIG. 1



09005569-070501

FIG. 2



EP 0 950 954 A1

FIG. 3

101

Registrant	Patient ID	Imaging Date	Apparatus ID	Image Data
A-hospital	A 1 2 3 4 5	2000-3-23 10:35	A_MRI#2	1110010100...
A-hospital	A 1 2 3 4 5	2000-3-23 11:47	A_MRI#1	1101001000...
A-hospital	A 1 2 3 4 5	2000-3-28 13:21	A_CT#1	1111010011...
A-hospital	A 1 2 3 4 5	2000-3-28 10:38	A_X#1	0111010001...
A-hospital	A 1 2 3 4 5	2000-4-11 15:38	A_CT#1	1100100101...
B-hospital	B 2 2 7 1 6	2000-6-15 10:26	B_MRI#1	1101101001...
B-hospital	B 2 2 7 1 6	2000-6-15 10:58	B_MRI#1	0100111011...
B-hospital	B 2 3 8 5 7	2000-6-20 14:16	B_MRI#1	1101101101...
C-hospital	C 5 2 7 1 2	2000-3-30 10:53	C_MRI#1	1101001011...
C-hospital	C 5 2 7 1 2	2000-3-30 11:35	C_MRI#1	0010110110...
C-hospital	C 5 2 8 6 8	2000-4-12 15:16	C_MRI#1	1101011011...
C-hospital	C 5 2 8 8 7	2000-4-13 11:21	C_CT#1	0001110111...

FIG. 4

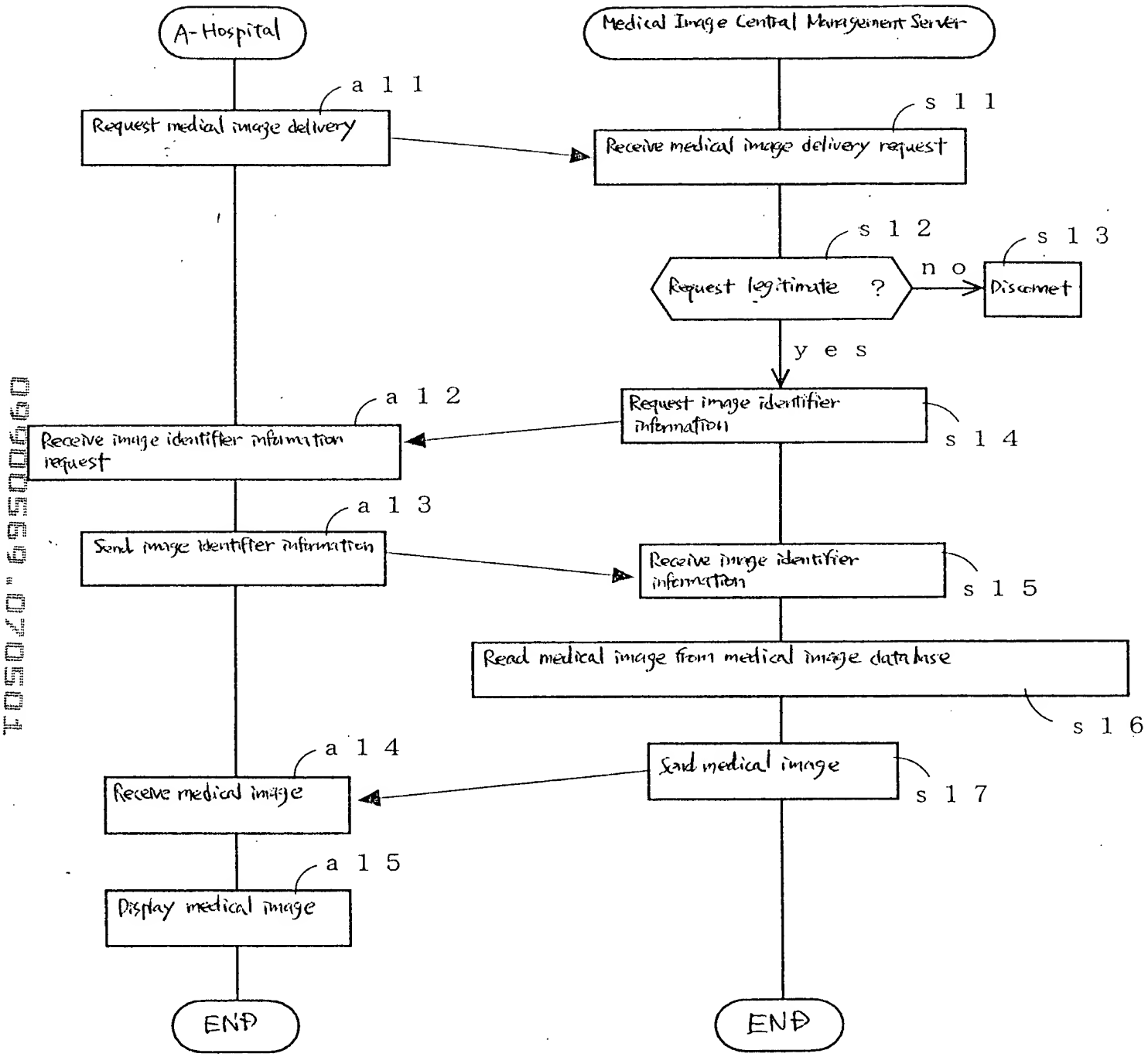

A-Hospital
Medical Image Central Management Server
a 1 1
Request medical image delivery
s 1 1
Receive medical image delivery request
s 1 2
Request legitimate ?
n o
s 1 3
Disconnect
y e s
a 1 2
Receive image identifier information request
Request image identifier information
s 1 4
a 1 3
Send image identifier information
Receive image identifier information
s 1 5
Read medical image from medical image database
s 1 6
a 1 4
Receive medical image
Send medical image
s 1 7
a 1 5
Display medical image
END
END

FIG. 5

G1

Patient ID A 1 2 3 4 5 Patient Name: Tokkyo, Taro

Delivery specification	Imaging Date	Image type	Apparatus ID	Site	Comment	Thumbnail
☐	2000-3-23 10:35	MR image	A_MRI#2	Heart	Cardiomyopathy suspected	
☒	2000-3-23 11:47	MR image	A_MRI#1	Lung	Lung cancer suspected	
☐	2000-3-28 13:21	CT image	A_CT#1	Liver	Normal	
☐	2000-3-28 10:38	X-ray image	A_X#1	Liver	Normal	
☐	2000-5-16 15:16	CT image	A_CT#1	Pancreas	Acute pancreatitis suspected	

Cancel | Request Delivery

FIG. 6

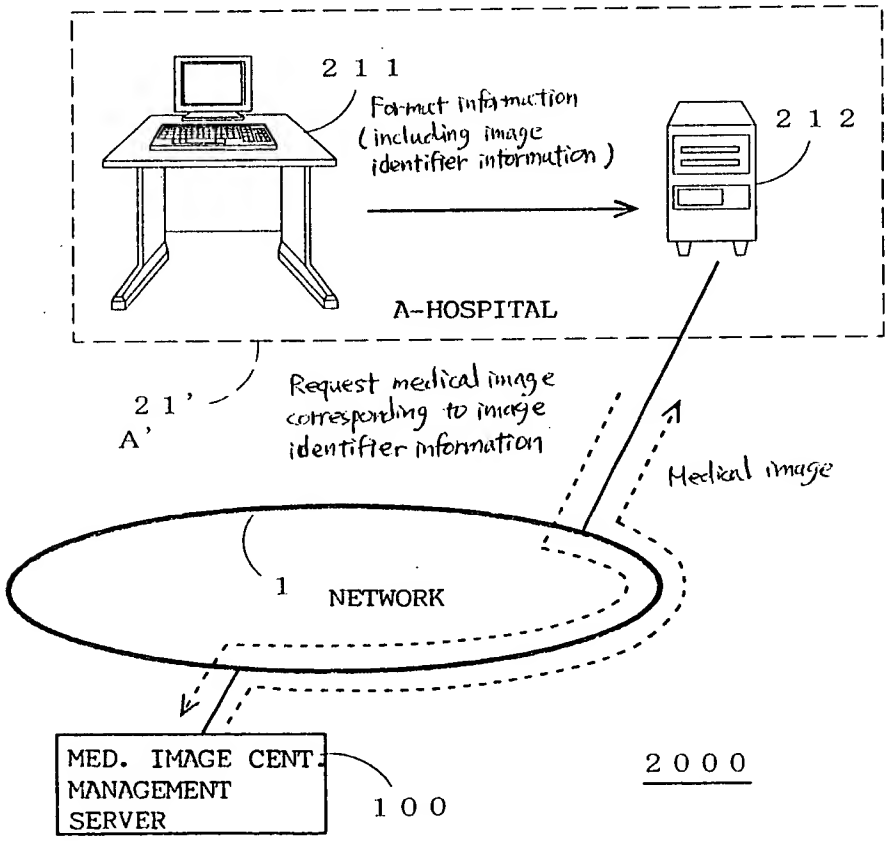
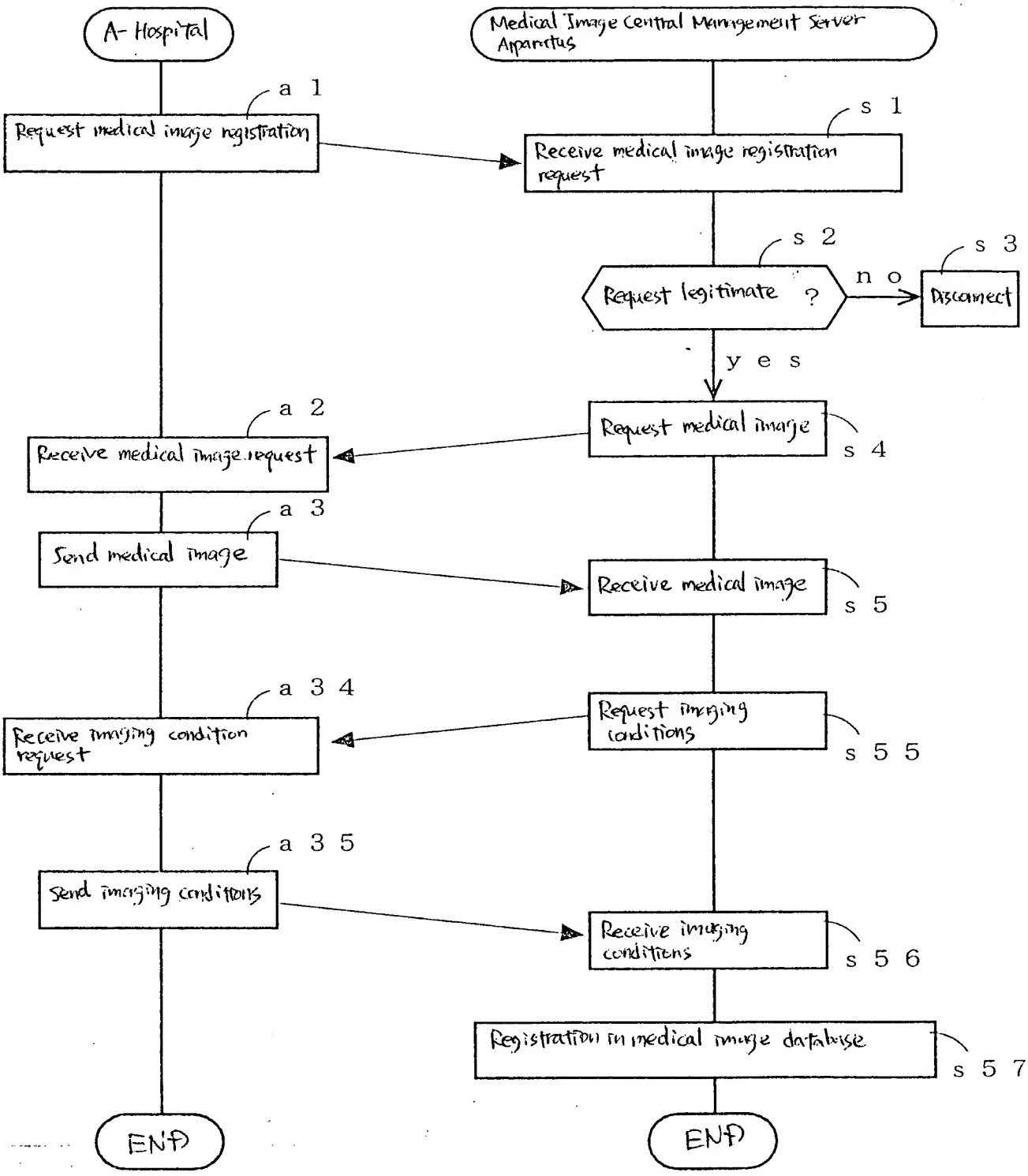


FIG. 7



EP 0 950 976 A1

FIG. 8

201

Registrant	Patient ID	Imaging Date	Apparatus ID	Image Data	Imaging Condition
A-hospital	A 1 2 3 4 5	2000-3-23 10:35	A_MRI#2	1110010100...	TR=2100, TE=70,...
A-hospital	A 1 2 3 4 5	2000-3-23 11:47	A_MRI#1	1101001000...	TR=2400, TE=80,...
A-hospital	A 1 2 3 4 5	2000-3-28 13:21	A_CT#1	1111010011...	p=3, th=1...
A-hospital	A 1 2 3 4 5	2000-3-28 10:38	A_X#1	0111010001...	mAs=26, ...
A-hospital	A 1 2 3 4 5	2000-4-11 15:38	A_CT#1	1100100101...	p=6, th=2...
B-hospital	B 2 2 7 1 6	2000-6-15 10:26	B_MRI#1	1101101001...	TR=1700, TE=60,...
B-hospital	B 2 2 7 1 6	2000-6-15 10:58	B_MRI#1	0100111011...	TR=2600, TE=75,...
B-hospital	B 2 3 8 5 7	2000-6-20 14:16	B_MRI#1	1101101101...	TR=2300, TE=55,...
C-hospital	C 5 2 7 1 2	2000-3-30 10:53	C_MRI#1	1101001011...	TR=1500, TE=35,...
C-hospital	C 5 2 7 1 2	2000-3-30 11:35	C_MRI#1	0010110110...	TR=2800, TE=70,...
C-hospital	C 5 2 8 6 8	2000-4-12 15:16	C_MRI#1	1101011011...	TR=2500, TE=55...
C-hospital	C 5 2 8 8 7	2000-4-13 11:21	C_CT#1	0001110111...	p=3, th=2...

FIG. 9

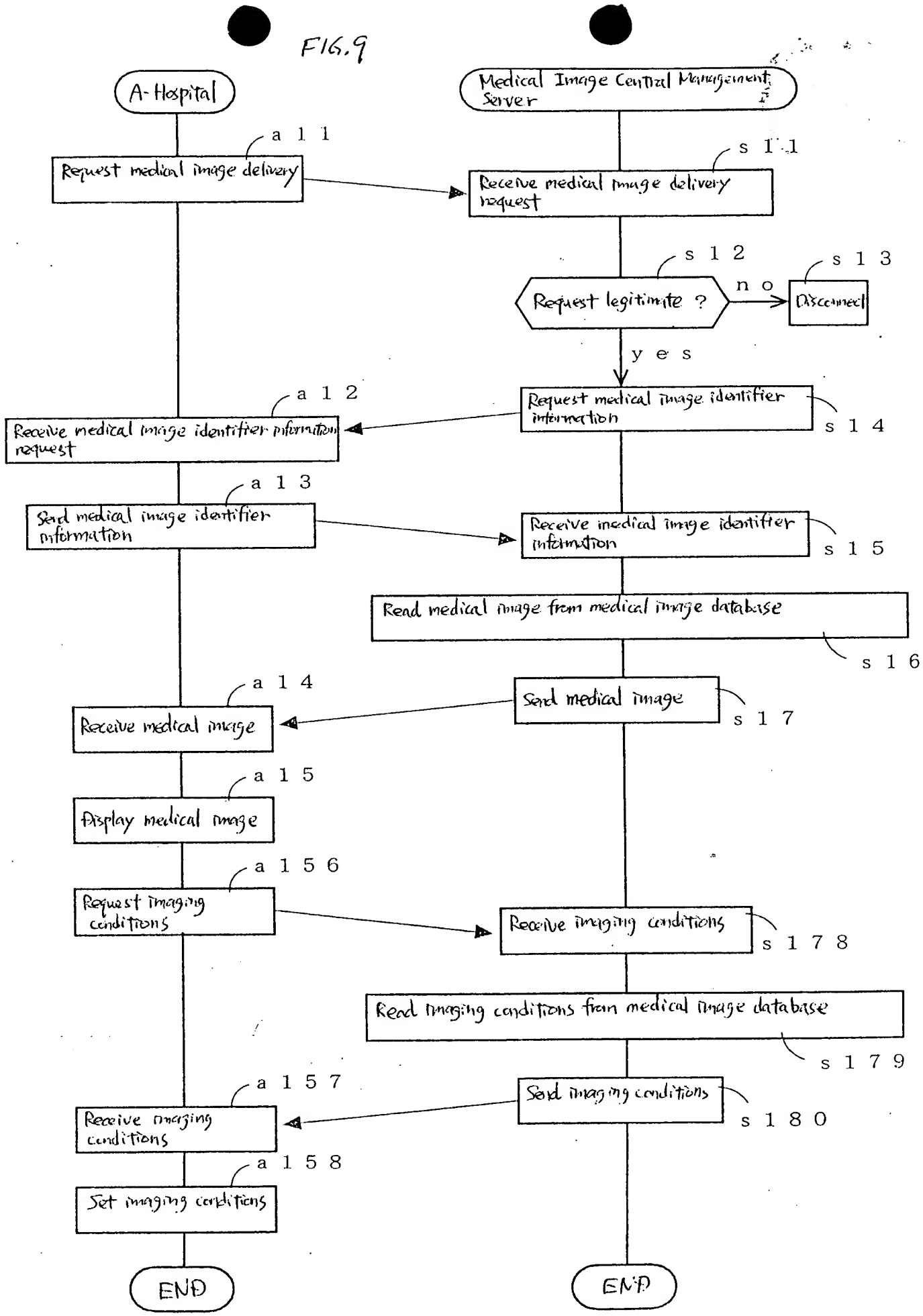

A-Hospital
Medical Image Central Management Server
a 1 1
Request medical image delivery
s 1 1
Receive medical image delivery request
s 1 2
Request legitimate ?
n o
s 1 3
Disconnect
y e s
a 1 2
Receive medical image identifier information request
Request medical image identifier information
s 1 4
a 1 3
Send medical image identifier information
Receive medical image identifier information
s 1 5
Read medical image from medical image database
s 1 6
a 1 4
Receive medical image
Send medical image
s 1 7
a 1 5
Display medical image
a 1 5 6
Request imaging conditions
Receive imaging conditions
s 1 7 8
Read imaging conditions from medical image database
s 1 7 9
a 1 5 7
Receive imaging conditions
Send imaging conditions
s 1 8 0
a 1 5 8
Set imaging conditions
END
END

FIG. 10

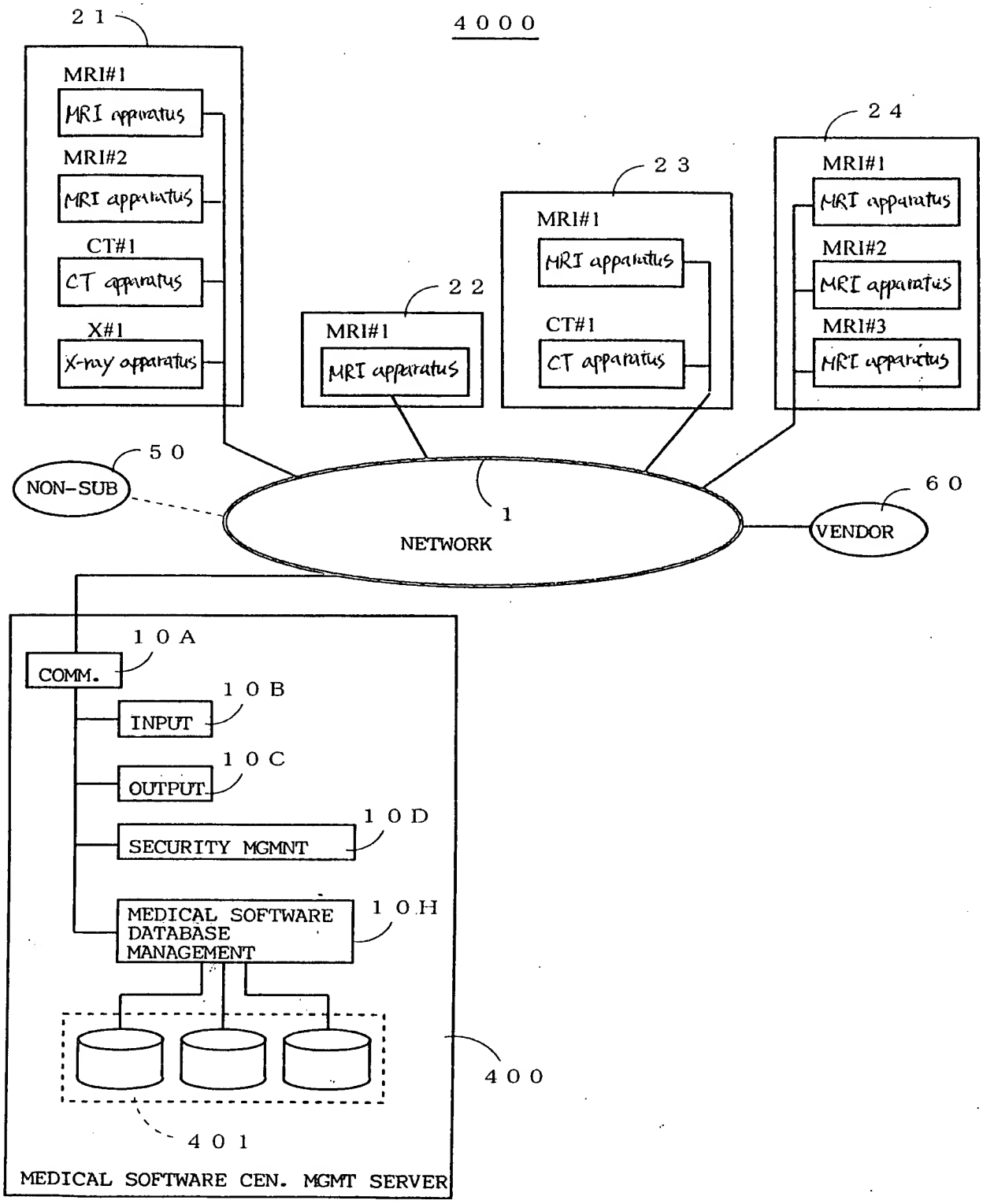

4000
21
MRI#1
MRI apparatus
MRI#2
MRI apparatus
CT#1
CT apparatus
X#1
X-ray apparatus
22
MRI#1
MRI apparatus
23
MRI#1
MRI apparatus
CT#1
CT apparatus
24
MRI#1
MRI apparatus
MRI#2
MRI apparatus
MRI#3
MRI apparatus
50
NON-SUB
1
NETWORK
60
VENDOR
10A
COMM.
10B
INPUT
10C
OUTPUT
10D
SECURITY MGMNT
10H
MEDICAL SOFTWARE DATABASE MANAGEMENT
400
401
MEDICAL SOFTWARE CEN. MGMT SERVER

FIG. 11

401

Installation Site	Update date	Apparatus ID	Medical Software ID
A-hospital	2000-3-23 3:35	A_MRI#1	GEYMS_MR_SYSTEM_VER5.0
A-hospital	2000-3-23 1:47	A_MRI#2	GEYMS_MR_SYSTEM_VER5.0
A-hospital	2000-3-28 3:21	A_CT#1	GEYMS_CT_SYSTEM_VER7.3
A-hospital	2000-3-28 4:38	A_X#1	GEYMS_X_SYSTEM_VER3.0
B-hospital	2000-6-15 5:26	B_MRI#1	GEYMS_MR_SYSTEM_VER8.0
C-hospital	2000-3-30 6:53	C_MRI#1	GEYMS_MR_SYSTEM_VER7.0
C-hospital	2000-4-13 2:21	C_CT#1	GEYMS_CT_SYSTEM_VER6.0

401S

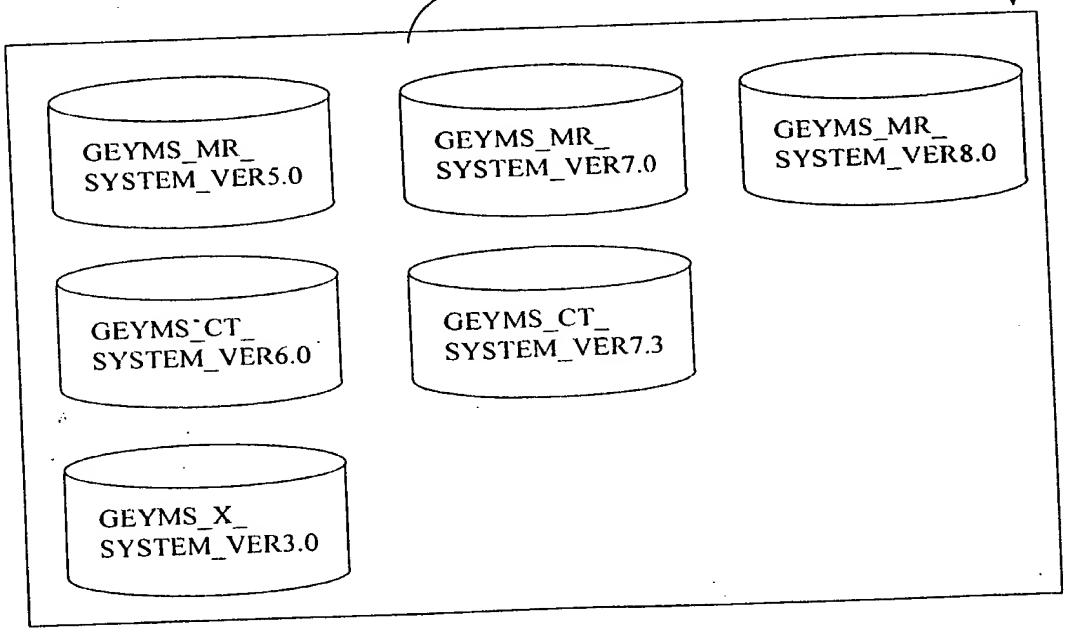


FIG. 12

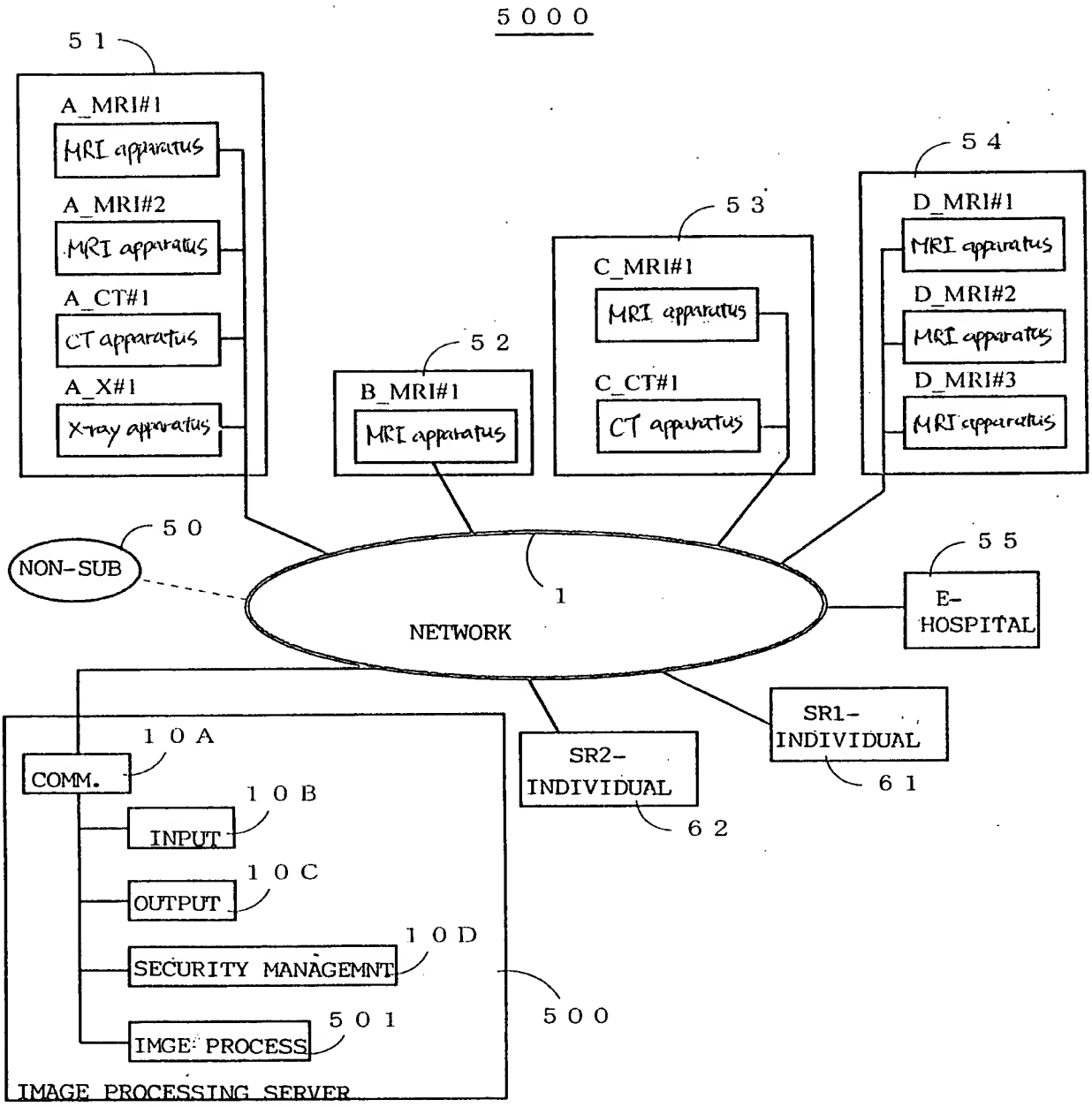

5000
51
A_MRI#1
MRI apparatus
A_MRI#2
MRI apparatus
A_CT#1
CT apparatus
A_X#1
X-ray apparatus
52
B_MRI#1
MRI apparatus
53
C_MRI#1
MRI apparatus
C_CT#1
CT apparatus
54
D_MRI#1
MRI apparatus
D_MRI#2
MRI apparatus
D_MRI#3
MRI apparatus
50
NON-SUB
1
NETWORK
55
E-HOSPITAL
SR1-INDIVIDUAL
61
SR2-INDIVIDUAL
62
10A
COMM.
10B
INPUT
10C
OUTPUT
10D
SECURITY MANAGEMNT
501
IMGE PROCESS
500
IMAGE PROCESSING SERVER

FIG. 13

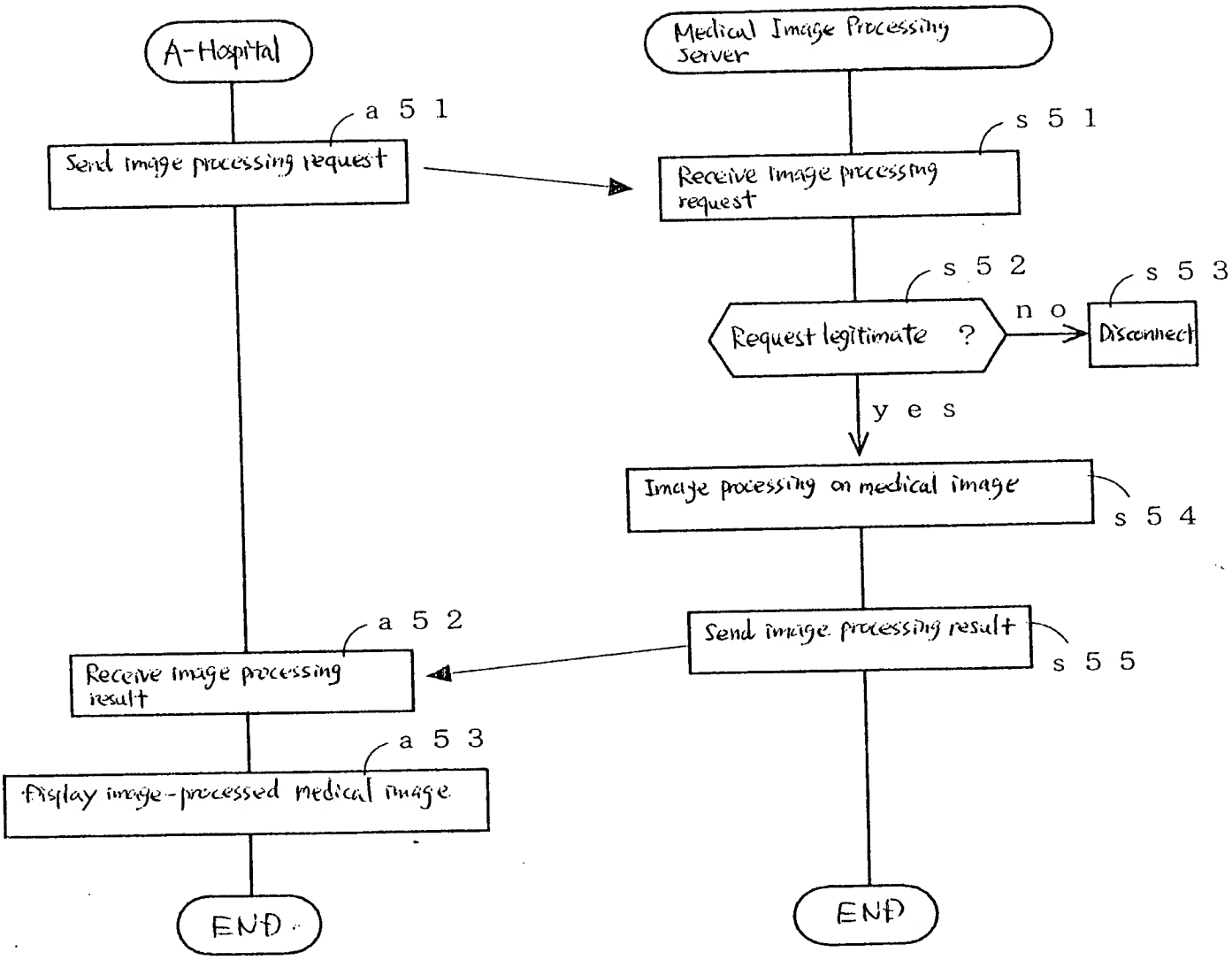

A-Hospital
Medical Image Processing Server
a 5 1
Send image processing request
s 5 1
Receive image processing request
s 5 2
Request legitimate ?
n o
s 5 3
Disconnect
y e s
Image processing on medical image
s 5 4
Send image processing result
s 5 5
a 5 2
Receive image processing result
a 5 3
Display image-processed medical image
END
END

FIG. 14

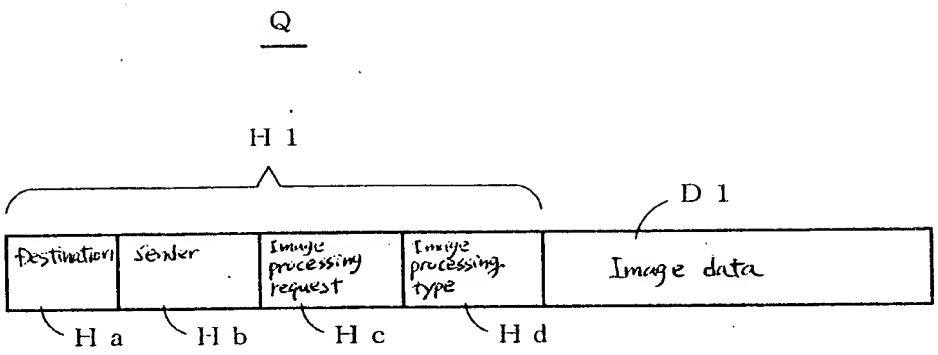
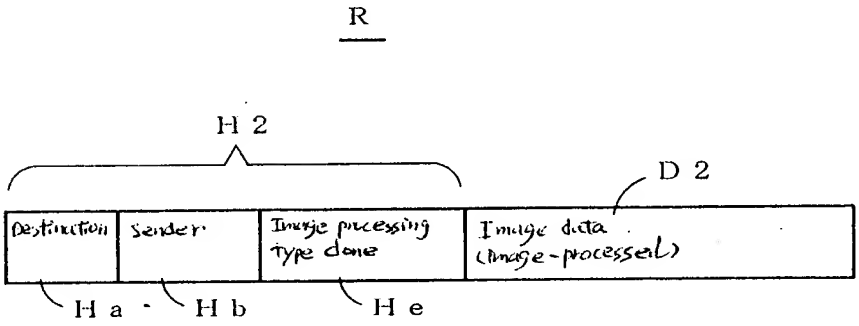


FIG. 15



09005650.070501

FIG. 16

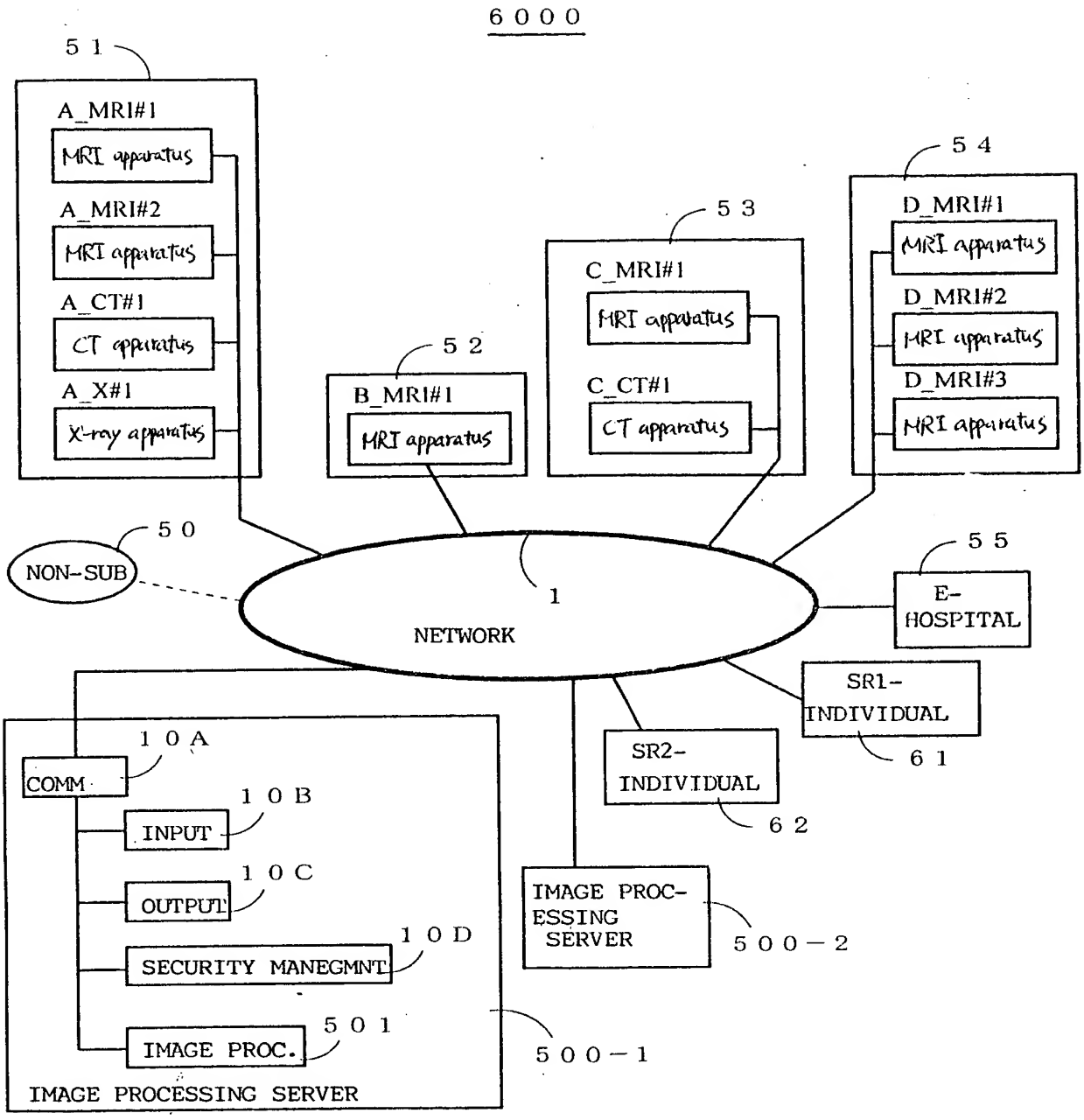
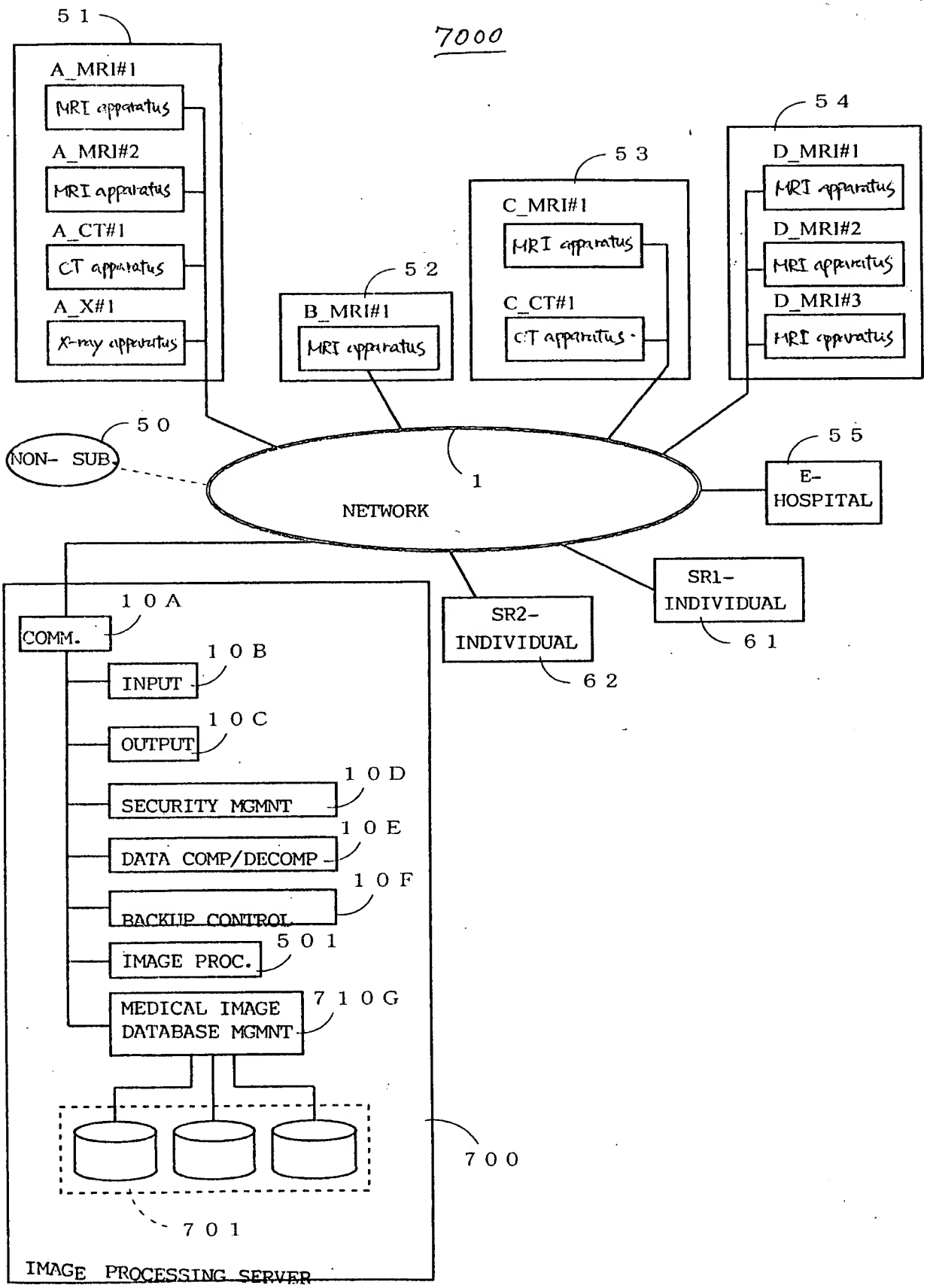
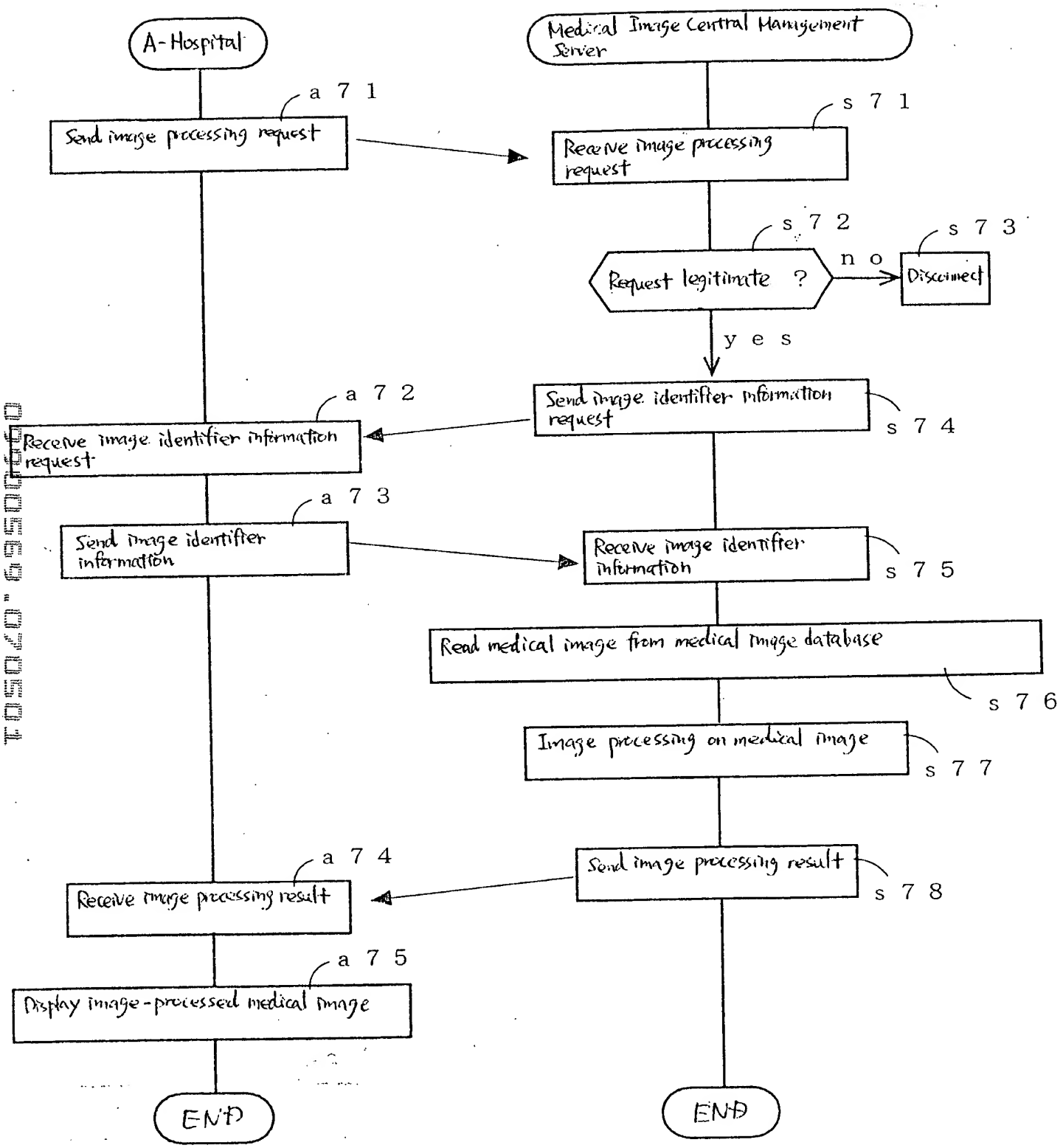

6000
51
A_MRI#1
MRI apparatus
A_MRI#2
MRI apparatus
A_CT#1
CT apparatus
A_X#1
X-ray apparatus
52
B_MRI#1
MRI apparatus
53
C_MRI#1
MRI apparatus
C_CT#1
CT apparatus
54
D_MRI#1
MRI apparatus
D_MRI#2
MRI apparatus
D_MRI#3
MRI apparatus
50
NON-SUB
1
NETWORK
55
E-HOSPITAL
SR1-INDIVIDUAL
61
SR2-INDIVIDUAL
62
IMAGE PROC-ESSING SERVER
500-2
10A
COMM
10B
INPUT
10C
OUTPUT
10D
SECURITY MANEGMNT
501
IMAGE PROC.
IMAGE PROCESSING SERVER
500-1

FIG. 17



EP 0 950 960 A2

FIG. 18


A-Hospital
Medical Image Central Management Server
a 7 1
Send image processing request
s 7 1
Receive image processing request
s 7 2
Request legitimate ?
n o
s 7 3
Disconnect
y e s
Send image identifier information request
s 7 4
a 7 2
Receive image identifier information request
a 7 3
Send image identifier information
Receive image identifier information
s 7 5
Read medical image from medical image database
s 7 6
Image processing on medical image
s 7 7
Send image processing result
s 7 8
a 7 4
Receive image processing result
a 7 5
Display image-processed medical image
END
END